## **CLAIMS**

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- 1. A hotmelt adhesive composition containing a mixture of at least one reactive binder and at least one non-reactive binder, characterized in that at least one reactive binder consists of silane-functional polyisobutylenes and/or silane-functional hydrogenated polybutadienes and/or silane-functional poly- $\alpha$ -olefins and the non-reactive binder(s) is selected from the group consisting of butyl rubbers, poly- $\alpha$ -olefins, polybutenes, rubbers based on styrene block copolymers, rubbers based on statistical diene homopolymers and/or copolymers.
- 2. A composition as claimed in claim 1, characterized in that the silane-functional groups of the reactive binder(s) are represented by formula (1):

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$$-A = \begin{bmatrix}
R^{2} \\
| 2-b
\end{bmatrix} = \begin{bmatrix}
R^{1} \\
| 3-a
\end{bmatrix}$$
20
$$\begin{bmatrix}
X_{b}
\end{bmatrix} = \begin{bmatrix}
X_{b}
\end{bmatrix}$$

where -A- can represent

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$$-(CH_{2})_{m} - (2)$$

$$-S-(CH_{2})_{m} - (3) \text{ or }$$

$$-N-C-N-R^{3} - (4)$$

$$\parallel \parallel$$

$$\parallel H O H$$

and R¹ and R² may be the same or different and represent an alkyl group containing 1 to 20 carbon atoms, an aryl group containing 6 to 20 carbon atoms or an arylalkyl group containing 7 to 20 carbon atoms, X can be a

hydroxyl group or a hydrolyzable group, a = 0, 1, 2 or 3 and b = 0, 1 or 2, the sum of a and b being 1 or greater than 1, and n is an integer of 0 to 18, m is an integer of 0 to 4 and  $R^3$  represents

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- A composition as claimed in at least one of the preceding claims,
   characterized in that it contains
  - (a) 20 to 70% by weight of silane-functional binder,
  - (b) 5 to 30% by weight of non-reactive binder,
  - (c) 20 to 30% by weight of water-binding fillers, preferably molecular sieves of the 3A type,
  - (d) 5 to 30% by weight of fine-particle inert fillers selected from the group consisting of ground or precipitated chalks, kaolins, clays, carbon blacks,
  - (e) 0.1 to 2% by weight of organofunctional silanes,
- 20 (f) 0.1 to 2% by weight of catalysts,
  - (g) 0 to 3% by weight of antiagers selected from the group consisting of antioxidants, UV stabilizers, anti-ozonants, hydrolysis stabilizers.
  - 4. A composition as claimed in claim 3, characterized in that it contains 2 to 40% by weight of plasticizer.
- 5. A two-component composition as claimed in claim 3 or 4, characterized in that one component contains constituents (a) to (e) and (g) and the second component consists of constituents (b), (c), (d), (f) and optionally plasticizer.
  - 6. A two-component composition as claimed in claim 3 or 4, characterized in that one component contains constituents (a) to (g) and the second component consists of a water-containing paste which contains water in dissolved, adsorbed or emulsified form or in the form of solid water-releasing

substances and optionally a non-reactive binder (b) and/or plasticizer.

- 7. A process for producing the compositions claimed in at least one of the preceding claims, characterized in that the constituents are subjected to high-shear mixing to homogeneity, optionally in vacuo or in a dry inert gas atmosphere.
- 8. The use of the compositions claimed in at least one of the preceding claims as a one-component or two-component adhesive for the production of double glazing or multiple glazing.
- 9. Double or multiple glazing, characterized in that the compositions claimed in at least one of the preceding claims serve simultaneously as
  - spacers between the individual layers of glass,
  - a matrix for the moisture-absorbing substances,
  - a water vapor barrier and
  - an elastic edge seal/bond
- 15 for the glazing.

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- 10. A process for the production of double glazing as claimed in claim 9, characterized by the following process steps:
- (a) the layers of glass to be joined are held at the predetermined distance apart.
- 20 (b) the compositions claimed in at least one of claims 1 to 4 are injected between the glass layers at their edges, optionally with heating and profiling,
  - (c) the composition cures to form an elastic seal/bond by absorbing moisture from the space between the layers of glass and/or the ambient air.
- 11. A process as claimed in claim 9, characterized in that the components of the compositions claimed in claim 5 or 6 are mixed immediately before step (b) is carried out.
  - 12. A process for the production of double glazing as claimed in claim 9, characterized by the following process steps:
- 30 (a) the compositions claimed in at least one of claims 1 to 4 are applied to

the edge of one layer of glass, optionally with heating and profiling,

- (b) the second layer of glass or additional layers of glass is/are positioned over the first in such a way that the layers of are in exact alignment one above the other,
- 5 (c) the layers of glass are pressed together in such a way that the adhesive completely wets the edges of both or all layers of glass and the predetermined distance between the layers is reached,

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- (d) the adhesive composition occurs to form an elastic seal/bond by absorbing moisture from the space between the layers of glass and/or the ambient air.
- 13. A process as claimed in claim 12, characterized in that the components of the compositions claimed in claim 5 or 6 are mixed immediately before step (a) is carried out.